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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------------|--------------------|
| 09/784,057 | 02/16/2001 | Michio Asukabe | 202593US0 | 4856 |
| 22850 | 7590 | 07/07/2003 | | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | EXAMINER PADGETT, MARIANNE L | |
| | | | ART UNIT 1762 | PAPER NUMBER 14 |
| | | | DATE MAILED: 07/07/2003 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | | |
|-----------------|------------|----------------|---------------|
| Application No. | 09/784,057 | Applicant(s) | Asukake et al |
| Examiner | M.L. Pugh | Group Art Unit | 1762 |

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

Responsive to communication(s) filed on 9/10/03

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

Claim(s) 13, 15-20 - 24-26 is/are pending in the application.

Of the above claim(s) 26 is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 13, 15-20 - 24-25 is/are rejected.

Claim(s) _____ is/are objected to.

Claim(s) _____ are subject to restriction or election requirement

Application Papers

The proposed drawing correction, filed on _____ is approved disapproved.

The drawing(s) filed on _____ is/are objected to by the Examiner

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

All Some* None of the:

Certified copies of the priority documents have been received.

Certified copies of the priority documents have been received in Application No. _____.

Copies of the certified copies of the priority documents have been received
in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

Information Disclosure Statement(s), PTO-1449, Paper No(s). B Interview Summary, PTO-413

Notice of Reference(s) Cited, PTO-892 Notice of Informal Patent Application, PTO-152

Notice of Draftsperson's Patent Drawing Review, PTO-948 Other _____

Office Action Summary

1. New Claim 26 is a product claim to a membrane, hence directed to non-elected claims of group I, and is the only one remaining in the case.

This application contains claim 26 drawn to an invention nonelected with traverse in Paper No. 9. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

2. Claims 13, 15-20 and 24-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This rejection is only being made, because technically the claim to produce just one carbonyl or one hydroxyl is new matter, as the specification provides no way to produce then in the singular. Changing the amended phrase in claim 13 to plural and to get rid of the "a" articles, so as to read, for example --surface carbonyl groups, ...--, as it was disclosed on cited page 7, would correct this problem that was clearly an unintended over sight.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 13, 15-20 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nezu et al (718), in view of Goldberg, and optionally either Kono et al and/or Hubbard et al, as discussed in section 6 of paper # 10.

The above change in the rejection was made with applicant's apparent intent in mind, and since any of the oxygen or oxidative type plasma taught in the secondary references would have produced at least one -OH or -C=O on the surface, however for discussion of particular functional groups formed in their oxidative plasma atmosphere pretreatments, Kono et al and Hubbard et al appear to be silent. On the other hand,

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Goldberg et al discusses type of surface functional groups that GDP (Glow discharge Plasma) oxidation reactions would include, mentions "peroxy or hydroperoxy groups, or other chemically reactive atomic or molecular species on the surface" (col. 4, lines 25-27) or "active surface oxygen-containing groups" (col. 4, lines 41-42), with col. 9, lines 14-21 mentioning it is effective in changing normal surface characteristics of the polymers [polyolefins] from hydrophobic to hydrophilic. Col 10, which teaches specific substrates (top of page) as in Nezu et al (718) or the claims, gives parameters for GDP to activate or oxidize, and elsewhere oxygen, air or water vapor are mentioned as oxygen sources. While Goldberg et al's specifically mentioned peroxy and hydroperoxy are not applicants specific -OH or -C=O examples, they are related species, as the former are more active and would have been expected to decay at least in part to give functional groups as claimed, especially as Goldberg specifically suggest other reactive groups, or generically refers to O-containing, hence one of ordinary skill would expect broader variety of O-containing functional groups, than the specific mentioned groups to be useful and produced, and further Goldberg et al suggest what types of functional groups that air or O-plasmas would have been expected to produce. Note air comprises oxygen inherently.

5. Claims 13, 15-20 and 24-25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 6-7, 11-13, 15-16, and 19-21 of U.S. Patent No. 6,242,123 B1 in view of Goldberg et al, optionally in view of Kondo et al and/or Hubbard et al, as discussed in section 7 of paper # 10, and section 4 above.

6. Applicant's arguments filed 4/15/03 and discussed above have been fully considered but they are not persuasive.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication should be directed to M L. Padgett at telephone number 703-308-2336 on M-F from about 8:30 am – 4:30 pm; and FAX # (703) 872-9310 (regular); 872-9311 (after final); and 305-6078 (informal).

M. L. Padgett/mn 7/01/03
July 7, 2003



MARIANNE PADGETT
PRIMARY EXAMINER